UNITED STATES PATENT AND TRADEMARK OFFICE

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10/521,798	01/21/2005	Robert J. Lowles	PAT 53966W-2	5057

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EXAMINER
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ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
11/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*17 September 2007*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on 09/17/2007 has been entered and considered by examiner

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
obviousness or nonobviousness.

3.   Claims 1-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sawanobori et al. (US Patent # 5,936,668) in view of Windsor et al. (US Patent #

6,512,607).

As for claim 1, Sawanobori et al. (Figs. 6, 10) discloses:

A method for indicating an event change (Col. 7, lines 14-18) *in a first area* (17b) *of a*

viewing area of a liquid crystal display (17), *the LCD viewing area having a second area*

(17a), *surrounded* **on two sides** *by said first area, for displaying images.*

the method comprising the steps of:

providing control information (input from CCD 15);

determining said event change from a list of event changes (Col. 4, line 66 – Col. 5, line

4) *based on said control information;*

determining a first drive signal for said event change; and

supplying a first group of pixels in said first area with said first drive signal,

said first group of pixels (pixels in top portion of first area 17b) *comprising at least one*

pixel, thereby controlling a colour

of said first group of pixels with said first drive signal.

Sawanobori et al. states in Col. 4, line 66 – Col. 5, line 4 that the first area is for

displaying information related to the image currently being displayed, like the date of

image, use of strobe, and number of fames used, additionally information related to the

device itself can be displayed like the amount of battery. Sawanobori et al. suggests

that any other information relating to the image or the device itself could also be

displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b)

which would change with every frame displayed in the second area. Each new frame

displayed is an example of an event change, and necessitates the first drive signal be

set to a certain value corresponding to that frame, thereby controlling the colors of the

first group of pixels.

Sawanobori et al. does not teach the second area being surrounded by the first area.

In the same field of endeavor (i.e. LCD displays) Windsor et al. (Fig. 5A) discloses:

A first area (24) of a viewing area of a liquid crystal display (20), the LCD viewing area having a second area (26), surrounded by said first area, for displaying images.

Windsor et al. further teaches that the first area can contain a different image or a permanent image from the second area (Col. 4, line 58 – Col.5, line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the LCD display in Sawanobori et al. by adding two more sides to the first area such that it surrounds the second area as in Windsor et al. to give additional area for advertising and other branding features (Windsor, Col. 2, lines 9-15).

As for claim 2, Sawanobori et al. teaches:

Wherein the step of providing control information comprises the steps of:

inputting (15) said control information to an electronic device (The CCD 15 captures an image, which is the control information); *and*

sending a signal with said control information to an LCD drive circuit (45) from a controlling element (20) of an electronic device (Fig. 6) housing said LCD (a signal containing the control information is sent to the LCD driver to be displayed on the screen) (Col. 4, lines 20-25).

As for claim 3, Sawanobori et al. teaches:

Wherein the step of providing control information comprises the steps of:

using a software program with control information resident on an electronic device; and

sending a signal with said control information to an LCD drive circuit (45) from a

controlling element (20) of an electronic device (Fig. 6) housing said LCD.

While Sawanobori et al. does not explicitly teach the limitation of using a software

program with control information resident on an electronic device, Sawanobori et al.

states that the controlling element is a microprocessor microprocessor which controls

the entire operation of the camera (Col. 5, line 7). Microprocessors are devices that

process instructions (control information), and therefore inherently require a software

program which contains those instructions to operate. Furthermore, the system

controller sends a signal with control information to the LCD drive circuit to control it

(Col. 5, lines 58-64)

As for claim 4, Sawanobori et al. teaches:

A method which comprises the further steps of:

supplying a second drive signal to a second group of pixels (pixels in bottom portion of

first area 17b) *in said first area, said second group of pixels comprising at least one*

pixel; and

controlling a colour of said second group of pixels with said second drive signal, thereby

creating a pattern within said first area (Each new frame displayed is an example of an

event change, and necessitates the second drive signal be set to a certain value

corresponding to that frame, thereby controlling the colors of the second group of

pixels.).

As for claim 5, Sawanobori et al. teaches:

Wherein the colours of said first and second groups of pixels are dynamically controlled

based on images displayed in said second area of said viewing area (Col. 7, lines 14-

18).

The colours of the first and second groups of pixels are based on the frames

currently displayed in the second area, and therefore is dynamically controlled based on

images displayed in the second area.

As for claim 6, Sawanobori et al. teaches:

wherein said control information is provided at the time of manufacturing an electronic

device housing the LCD, or selected by a user during operation of the electronic device.

The device in Sawanobori et al. contains a controlling element (Fig. 6, #20) which

inherently requires a software program containing control information to operate, and

that program would have been provided at the time of manufacturing. Furthermore, it is

well known in the art that a digital camera such as the one disclosed in Sawanobori et

al. would have control interfaces to allow the user to input control information. One such

control button even appears on the top surface of the device depicted in Fig. 11,

although it is not numbered.

As for claim 7, Sawanobori et al. teaches:

Wherein said first drive signal is set to a certain value if an event change has taken

place (Col. 7, lines 14-18).

Sawanobori et al. states that the first area is for displaying information related to

the image currently being displayed, like the date of image, use of strobe, and number

of fames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. suggests that any other information relating to the image or the device itself could also be displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b) which would change with every frame displayed in the second area. Each new frame displayed is an example of an event change, and necessitates the first drive signal be set to a certain value corresponding to that frame.

As for claim 9, Sawanobori et al. teaches:

An apparatus for controlling a viewing area of a liquid crystal display comprising:

a liquid crystal display (17) having a first area (17b) for indication of at least one event change and a second area (17a), surrounded **on two sides** *by said first area, for displaying images;*

a controlling element (20) for determining said at least one event change from a set of event changes (Col. 4, line 66 – Col. 5, line 4) and for creating control information corresponding to said at least one event change (Col. 7, lines 14-18).

Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of fames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. suggests that any other information relating to the image or the device itself could also be displayed. Fig. 10 shows a specific example of a frame counter in the first area (17b) which would change with every frame displayed in the second area. Each new frame displayed is an example of an event

change, and necessitates the first drive signal be set to a certain value corresponding to

that frame; and an LCD driver circuit (45) for transmitting signals to said first area based

on said control information for indicating said at least one event change.

Sawanobori et al. does not teach a second area, surrounded by said first area.

Windsor et al. teaches:

An apparatus for controlling a viewing area of a liquid crystal display comprising:

a liquid crystal display (20) having a first area (24) for indication of at least one event

change and a second area (26), surrounded by said first area, for displaying images;

Windsor et al. further teaches that the first area can contain a different image or a

permanent image from the second area (Col. 4, line 58 – Col.5, line 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the LCD display in Sawanobori et al. by adding

two more sides to the first area such that it surrounds the second area as in Windsor et

al. to give additional area for advertising and other branding features (Windsor, Col. 2,

lines 9-15).

4.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Sawanobori et al. (US Patent # 5,936,668) in view of Windsor et al. (US Patent #

6,512,607) as applied to claim 7 above, and further in view of Denove et al. (US Patent

5,486,914).

As for claim 8, Sawanobori et al. in view of Windsor et al. teaches all the

limitations of claim 7.

They do not explicitly teach the limitation *wherein said event change is selected from group consisting of: message received, urgent message received, new application in use, backlight turned on, and backlight turned off.*

However, Sawanobori et al. states that the first area is for displaying information related to the image currently being displayed, like the date of image, use of strobe, and number of fames used, additionally information related to the device itself can be displayed like the amount of battery. Sawanobori et al. further suggests that any other information relating to the image or the device itself could also be displayed. One such piece of information that meets these suggested criteria is status of the backlight.

In the same field of endeavor (i.e. portable electronics with LCDs) Denove et al. teaches a portable electronic device with an LCD display and a backlight indicator (Col. 10, lines 52-58).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the LCD display in Sawanobori et al. in view of Windsor et al. to include the backlight indicator of Denove et al. in the first area to detect and display any event change of the backlight to inform the device operator whether the backlight is on or off when the device is being used under bright lighting conditions where the backlight status is not self evident (Denove et al., Col. 5, lines 50-58).

Response to Arguments

5.   Applicant's arguments filed on 09/17/2007 have been fully considered but they are not persuasive.

As for the '668 reference, applicant argues:

"the information that is being displayed by the second area is static information

associated with the image being displayed in the first area. As described in column 7,

lines 10 to 18, four images are displayed within the display along with information

related to each of the images. This static information includes the date of

photographing, an indication of whether a strobe is used, the number of used frames or

a remaining amount of a battery (column 5 lines 1 to 3). When displaying the images,

the device typically retrieves the image along with information that is stored in device.

As the static information regarding an image does not change, there is no need for the

device to continuously determine if a new event change has occurred. Furthermore,

with respect to information relating to the battery or the number of used frames, this

information is constantly stored in the device and therefore there is no requirement to

"determine an event change from a list of event changes" since this information is

always retrieved and is a constant with respect to the display area. Therefore, Applicant

respectfully submits that there is no discussion or suggestion in the '668 reference of

the device determining an event change from a list of event changes based on a set of

control information and then determining a first drive signal for the determined event

change."

The claim language does not require continuously determining if a new event has

occurred, it merely requires determining an event change from a list of even changes

based on said control information. The control information could be a pressing a button

to turn on the strobe, talking a picture to change the number of frames used, or a

change in the voltage of the battery. The state of any of this control information may be

stored in the device, but a change in that control information indicates an event change,

which requires the device to update the display accordingly.

As for the '607 reference, Applicant argues:

"The '607 reference provides a description of a display overlay whereby permanent

images or wording are printed on the display overlay. Applicant respectfully submits that

there is a lack of reason for combining the two references to arrive at the subject matter

of the claims and that even if the references are combined, this combination would not

render the claims obvious."

Sawanobori et al. teaches all the limitations of the claims except the second

display area being completely surrounded by the first display area. Windsor et al. is

simply used in the 103 rejection to teach an LCD with a second display area surrounded

by a first display area. The fact that the image in the first display area is permanent is

immaterial. Windsor provides excellent reason to combine in Col. 2, lines 9-15, which

states that the overlay containing the first area may give additional area for advertising

and other like branding features.

As for claim 3, applicant argues:

"when rejecting claims based on inherency, the standard involves not just possibility,

desirability or efficiency but must also demonstrate necessity. Under the principles of

inherency, if the prior art necessarily functions in accordance with, or includes, the

claimed limitation, it anticipates. MEHL/Biophile Int'l Corp. v. Milgraum, 192 F.3d 1362,

1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999), quoted in In re Cruciferous Sprout

Litigation, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). Applicant respectfully submits that there is no necessity in this situation as the control information can be provided via a hard-wired connection and therefore, the Examiner's rejection of Claim 3 based on inherency is incorrect."

Sawanobori et al. states that the system controller is a microprocessor which controls the entire operation of the camera (Col. 5, line 7). Furthermore, fig. 6 shows the system controller connected an address control circuit, RAM, and non-volatile memory. This is clearly the architecture of a microcomputer. IEEE 100 the authoritative dictionary of IEEE standard terms defines a microprocessor as "An integrated circuit that contains the logic elements for manipulating data and for making decisions. See also: microcomputer; processor" a microcomputer is defined as "A computer that contains at least one microprocessor as it's main computing element." And a processor is defined as "A device that interprets instructions, and executes instructions, consisting of at least an instruction control unit and an arithmetic unit". Instructions are defined as "A statement or expression consisting of an operation and it operands (if any), which can be interpreted by a computer in order to perform some function or operation." From these definitions, it is clear that the system controller is part of a microcomputer system requiring software containing instructions (control information) to operate.

As for the assertion that a hard-wired connection does not constitute software, the IEEE definition of software is "Computer programs, procedures, and possibly associated documentation and data pertaining to the operation of a computer system." The definition of hardwired is "The implementation of processing steps within a device

by way of the placement of conductors between components within the device. The processing steps are not alterable except by modifying the conducting paths between components". Software is simply instructions for a computer. Implementation of those instructions by hardwiring does not change the fact that they are still instructions for a computer. A perfect example of this is a software program stored in a ROM chip. The software is hardwired into the ROM chip and is yet still considered software, because it still contains instructions for a computer.

As for claim 8, applicant argues:

"The '914 reference is directed at a device having a backlight indicator but does not include any suggestion or disclosure of the subject matter of determining an event change and indicating the event change on the display area."

The selection of an event change from a list of event changes is taught by Sawanobori et al. Denove et al. is simply used in the 103 rejection to teach that backlight indicators are well known in the art of LCD displays, and therefore could be used on any LCD display to inform the user of the status of the backlight. The event change is the change in state of the backlight, and the indicator displayed on the LCD indicates the event change on the display area.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert E. Carter whose telephone number is 571-270-

3006. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER

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REC

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